

EXHIBIT 25

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ORACLE AMERICA, INC.,)
Plaintiff,) Case No.
vs.) CV 10-03561 WHA
GOOGLE, INC.,)
Defendant.)
_____)

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VIDEOTAPED 30(b)(6) DEPOSITION OF GOOGLE, INC.

DESIGNEE: ANWAR GHULOUM

Palo Alto, California

Wednesday, December 9, 2015

Reported by:

KELLI COMBS, CSR No. 7705

Job No. 2189230

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THE WITNESS: So sorry, repeat the

question.

BY MR. RAMSEY:

Q All right.

You previously testified, I think the goal was to use a programming language that was familiar to developers, at least tactically and semantically.

Do you recall stating that?

A Syntactically and semantically, yes.

Q When you said that, you were talking about the Java platform, correct?

A Well, the programming language.

Q Okay.

So what did you mean when you said that the goal was to use a programming language that was familiar to developers, at least tactically and semantically?

MR. KWUN: Objection; misstates prior testimony, also vague and ambiguous.

THE WITNESS: So I meant syntactically. What I mean by that is that I think programmers want something familiar syntactically, so, for example, you know, the use of curly braces in the syntax after language is something that was -- probably attracted C and C++ developers to Java. So I think

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MR. KWUN: Objection; form.

THE WITNESS: So the -- excuse me. The -- I think in the way I think about this is that the Java core libraries, which, I believe, these 37 packages are a part of, are intrinsic to the language design; that is, they are, you know -- a language that's made up of syntax isn't terribly useful unless you have libraries that let you do useful things with low-level kinds of operations, like strings and so on. So I think these are viewed as -- by many people as intrinsic to the language design.

BY MR. RAMSEY:

Q It's true that somebody could write a program in the Java programming language without using the 37 packages at issue and instead, use JNI, correct?

MR. KWUN: Objection; form.

THE WITNESS: No, I actually think it would be very difficult. JNI interfaces that are -- I don't know if they're part of the 37 packages, but they're APIs as part of the core libraries.

BY MR. RAMSEY:

Q You agree you can write the program in the Java programming language using the JNI interface?

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It make sense, you know, the sort of have something that programmers were somewhat familiar with or looked familiar.

BY MR. RAMSEY:

Q How about --

A Sort of my speculation, so...

Q Okay.

Do you have an understanding of why Google chose to use the 37 API packages that are at issue in this case, in particular?

MR. KWUN: Objection; lacks foundation.

MR. RAMSEY: Just, Counsel -- I'd just -- just a reminder, the judge also requires only "objection; form." No -- no further specificity. No harm, no foul.

THE WITNESS: I don't know why -- I don't know what -- why those decisions were made at the time because I wasn't there. Yeah, I don't.

BY MR. RAMSEY:

Q Do you have --

I mean, just do you have a position, sitting here on behalf of Google, why the 37 API packages that are -- the 37 Java API packages that are at issue in this case, why those are used in the Android programming platform today?

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MR. KWUN: Objection; form.

BY MR. RAMSEY:

Q Just that is true, correct?

A Yes, that is true.

Q And when using the JNI interfaces, one does not have to use the 37 -- the set of 37 packages that are at issue in this case?

MR. KWUN: Objection; form.

THE WITNESS: I'm not sure if this -- I'm not sure if the -- if what is used to use JNI is covered in those 37 packages.

BY MR. RAMSEY:

Q Okay.

Have you reviewed the 37 packages, or are you generally familiar with the 37 packages --

A Generally familiar, but I haven't reviewed them in detail.

MR. KWUN: Just caution the witness to make sure that you give me some time to make objections, if I need to.

THE WITNESS: Sure. Sorry.

BY MR. RAMSEY:

Q Why do programmers who use the Java programming platform, in Google's view, appreciate the APIs?

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1 GPL-licensed code from OpenJDK into the Android
2 platform?

3 MR. KWUN: Objection; vague and ambiguous.

4 THE WITNESS: If I understand the question
5 correctly, no, we have not done that.

6 BY MR. RAMSEY:

7 Q So is -- is it correct to say that the use
8 of OpenJDK GPL-licensed code within Android is a
9 prospective plan of Google's?

10 MR. KWUN: Objection; vague and ambiguous.

11 THE WITNESS: Can you define what you mean
12 by "prospective"?

13 BY MR. RAMSEY:

14 Q I mean, it's something that Google is
15 going to do in the future.

16 A Yes, that's our plan.

17 Q Is there a time, a specific time, in which
18 that's going to happen?

19 THE WITNESS: Question for counsel.

20 MR. KWUN: Privilege issue?

21 THE WITNESS: Not privilege.

22 MR. RAMSEY: You know, let's -- let's --
23 we may hit a few areas; let's get a feel for how it
24 goes. Let's take a quick break, and you guys can
25 step out and come back. I also note there are going

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1 question about the use of Android in the platform,
2 my assumption was that you meant that we were
3 actually shipping this, so the answer would have
4 been no, which is the answer I gave. I think we are
5 currently working with OpenJDK in the platform, so
6 by "use" you meant, you know, integration now in
7 preparation for future release, then, yes.

8 Q Okay.

9 But as of today in December 2015, releases
10 of the Android platform to developers or OEMs or any
11 other interested party all contain non-OpenJDK code?

12 MR. KWUN: Objection; form.

13 THE WITNESS: They do not contain OpenJDK
14 code.

15 BY MR. RAMSEY:

16 Q So what is your understanding of the
17 license that is associated with the OpenJDK code?

18 A I know it by name. GPLv2 with Classpath
19 Exception. One word.

20 Q And do you have an understanding on behalf
21 of Google what that license requires of licensees?

22 MR. KWUN: Objection.

23 Are you asking about a legal
24 understanding?

25 MR. RAMSEY: I'm asking about Google's

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1 to be issues.

2 MR. KWUN: Yeah, fair enough.

3 THE VIDEOGRAPHER: We are off the record
4 at 10:06 a.m.

5 (Recess taken.)

6 THE VIDEOGRAPHER: We are back on the
7 record at 10:09 a.m.

8 MR. KWUN: Before we go further, I just
9 want to make the clarification, which I think will
10 address the issue that my client was worried about,
11 that we are designating the entirety of this
12 transcript Confidential, Attorneys' Eyes Only under
13 the terms of the protective order.

14 MR. RAMSEY: Right. And subject to
15 everybody negotiating if there's questions about
16 designations later, absolutely.

17 MR. KWUN: Absolutely. Obviously, it's
18 subject to further revision. But as a temporary
19 basis.

20 MR. RAMSEY: Okay. Great.

21 BY MR. RAMSEY:

22 Q So my question to you, Mr. Ghuloum is: Is
23 there a specific time that Google plans to replicate
24 the GPL code from OpenJDK into the Android platform?

25 A Yes. And in clarification to your earlier

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1 understanding.

2 MR. KWUN: Okay. Objection; calls for a
3 legal conclusion.

4 THE WITNESS: I don't -- I don't
5 understand the legalities of it fully. I do
6 understand some of the constraints we operate under
7 with GPL code.

8 BY MR. RAMSEY:

9 Q Tell me the constraints that Google
10 operates under with respect to GPL code.

11 A We -- let's see. We -- by "GPL code" you
12 mean a specific version of the GPL license?

13 Q So are you familiar with a license called
14 GPL Version 2 with the Classpath Exception?

15 A Yes. So you mean that version?

16 Q This is the version of GPL license I'm
17 talking about.

18 A Yeah. We are obviously unable to copy the
19 code into other modules, but we are able to link
20 against that code.

21 Q What do you mean "copy" --

22 You are unable to copy the code into other
23 modules?

24 A So the source code may not be used in
25 other parts of the Android system.

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1 BY MR. RAMSEY: ~~The code is correct.~~

2 Q Have there been any discussions between

3 Google and OEMs about the requirements of the GPL

4 license in the context of a future version of

5 Android?

6 MR. KWUN: Objection; beyond the scope.

7 THE WITNESS: As it relates to -- to GPLv2

8 or something else?

9 BY MR. RAMSEY:

10 Q We're talking about GPLv2 With the

11 Classpath Exception. You understand that license is

12 what governs OpenJDK code?

13 A Sure. Yes. Yes.

14 Q Okay.

15 A We -- I don't know of specific discussions

16 with OEMs about this. We deal with GPL code with

17 OEMs all the time. There are parts of the Android

18 platform that are GPL'd and we have GPL obligations

19 as a result.

20 Q Is the part of the Android platform, as

21 you just put it, that are GPL'd, is that the Linux

22 kernel?

23 A Correct.

24 Q And presently the Linux kernel is the only

25 part of code related to Android that is subject to

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1 BY MR. RAMSEY:

2 Q Correct.

3 A -- and files? Yes, I believe so.

4 Q And so would you anticipate that there

5 would be a -- some sort of conversation between

6 Google and OEMs about whether OEMs were willing to

7 accept GPL'ing their own added APIs?

8 MR. KWUN: Objection; form.

9 THE WITNESS: We will -- we will certainly

10 disclose to them that we are using OpenJDK.

11 BY MR. RAMSEY:

12 Q Do you believe that it is possible that

13 some OEMs would take the position that they did not

14 want to subject their new added APIs to the GPL

15 license?

16 MR. KWUN: Objection; form.

17 THE WITNESS: I don't think so. I

18 honestly -- obviously I don't know what their

19 considerations are, but, again, given that they

20 haven't had issues with GPL code in the past, I

21 don't think it'll be a problem.

22 BY MR. RAMSEY:

23 Q If an OEM such as, let's say, Samsung, for

24 example, had APIs -- new APIs that wanted to add to

25 the core libraries and wanted to keep those

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2 A I'm -- I'm not 100 percent sure, but I

3 think so.

4 Q And for the rest of the Android platform

5 in the stack above the Linux kernel, Google purports

6 to license that part of code under the Apache

7 license, correct?

8 MR. KWUN: Objection; form.

9 THE WITNESS: Apache or Apache compatible.

10 BY MR. RAMSEY:

11 Q What do you mean by "Apache compatible"?

12 A BSD licenses, I believe, are compatible.

13 I'm no expert in this space.

14 Q Okay.

15 If Google releases an open J- -- release

16 of Android in the future that contains GPL-licensed

17 APIs, isn't it true that the -- that any OEM who

18 wanted to add new APIs to that would have to agree

19 in advance that they're willing to be subject to

20 giving their -- their -- any new APIs they want to

21 add away under the GPL?

22 MR. KWUN: Objection; form.

23 THE WITNESS: Again, specifically you're

24 referring to adding APIs to those OpenJDK

25 packages --

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1 proprietary, don't you agree that it's likely that

2 Samsung would -- would not agree to use the OpenJDK

3 libraries?

4 MR. KWUN: Objection; incomplete

5 hypothetical and objection to the form.

6 THE WITNESS: It's difficult -- I mean,

7 this is -- again, it's a guess. It's -- the

8 difficulty here is that it's unlikely that any OEM

9 partner would actually add libraries to the OpenJDK

10 packages.

11 BY MR. RAMSEY:

12 Q Isn't it true that Samsung has -- has

13 added extra keyboard functionality in one of their

14 APIs -- in APIs in the core library?

15 MR. KWUN: Objection; form.

16 THE WITNESS: Not that I'm specifically

17 aware of where I know that partners who've made

18 changes have been in the applications frameworks in

19 Android.

20 BY MR. RAMSEY:

21 Q And the application frameworks is part of

22 the Android stack; is that correct?

23 A It's, yeah, part of the overall software

24 picture.

25 Q And so in the applications framework is a

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through these packages.

MR. KWUN: Objection; foundation and object to the form of the question.

THE WITNESS: I think we would have to provide equivalent functionality.

BY MR. RAMSEY:

Q But in the current version of Android that uses the 37 Java API packages, the functionality provided by those packages is described the same within the packages as descriptions used over in Java?

MR. KWUN: Objection; vague and ambiguous.

THE WITNESS: In terms of description, what do you mean specifically?

BY MR. RAMSEY:

Q So, for example, class -- the description of the function of the class NumericShaper, do you believe that that description provided to developers in Android is the same as it would be described in Java?

MR. KWUN: Objection; foundation.

THE WITNESS: I would expect, for the most part, it is and, in general, it should be. I don't have any specific instances where it isn't.

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wouldn't be the case.

BY MR. RAMSEY:

Q All right.

So we talked a while ago about the DEX compiler.

Do you recall that?

A The -- sorry. I don't think we ever specifically talked about the DEX compiler. But are you referring to the Java class file to DEX?

Q Correct.

So you recall we talked about converting Java bytecode into a -- into -- into Dalvik bytecode, correct?

A Correct.

Q Is there a process that Google uses to ensure that -- that process results in a full transliteration of the Java bytecode into the Dalvik bytecode?

MR. KWUN: Object to the form.

THE WITNESS: I mean, there's multiple tests that we have. So we have tests written -- thousands of tests written in terms of source Java language that, you know -- at the language level or checking the semantics of these API calls, and these are compiled into DEX bytecode and run on devices.

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Q Okay.

And for the method declarations within the classes, the Java classes used in Android, would you expect that those declarations are the same as the counterparts in the Java platform?

MR. KWUN: Objection; foundation.

THE WITNESS: Repeat the question again. Sorry.

BY MR. RAMSEY:

Q For the method declarations within the classes, the Java classes used in Android, would you expect those declarations to be the same as their counterparts in the Java platform?

A Yeah.

MR. KWUN: Same objection.

THE WITNESS: Sorry. Yeah, I would.

BY MR. RAMSEY:

Q And do you believe that the method declarations used in the Java classes in Android are used for the same purpose in Android as they are in the Java platform?

MR. KWUN: Objection; vague and ambiguous.

THE WITNESS: I believe so. I don't -- I don't -- I can't recall any instances where that

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In fact, they're part of our Compatibility Test Suite for Android, and we ensure that those pass on, you know, all devices that ship and are called Android.

BY MR. RAMSEY:

Q Okay.

So Google has created its own Compatibility Test Suite for Android, correct?

A Yes, that's correct.

Q And Google does not use the Java TCK, in other words, the Oracle compatibility test in order to test Android?

A That's correct.

Q Those are different tests; the Oracle TCK test of compatability is a different test of compatability than the Android Compatability Test Suite?

A Yes, that's correct.

Q Are there any tests that Google performs to ensure that Java bytecode maps uniquely to DEX bytecode?

MR. KWUN: Objection to the form of the question.

THE WITNESS: It's not -- it's not necessarily a goal of ours that Java code maps

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